

AMENDMENTS TO THE CLAIMS:

1. (Original) An information recording and reproducing apparatus with a ring buffer for reading and reproducing an image signal recorded in the ring buffer while writing an image signal supplied as time elapses into the ring buffer, comprising:

a recording and reproducing position information obtaining part for obtaining information indicative of each of a recording position and a reproducing position at a present time point in said ring buffer; and

a ring buffer monitor image signal generating part for generating a ring buffer monitor image signal indicative of an image showing a relative positional relation of each of said recording position and said reproducing position in said ring buffer.

2. (Currently amended) An apparatus according to claim 1, further comprising:
an image synthesizing part for outputting a synthesis image signal obtained by synthesizing said image signal reproduced from said ring buffer and said ring buffer monitor image signal.

3. (Original) An apparatus according to claim 1, wherein said ring buffer monitor image signal generating part generates an image signal, as said ring buffer monitor image signal, for allowing a recording position mark to be displayed at a position corresponding to said recording position on a peripheral area of a screen of a display device and allowing a reproducing position mark to be displayed at a position corresponding to said reproducing position on said peripheral area, respectively.

4. (Original) An apparatus according to claim 3, wherein said ring buffer monitor image signal generating part changes a form of said reproducing position mark in accordance with a bit rate of said image signal reproduced from said ring buffer and changes a form of said recording position mark in accordance with a bit rate of said image signal to be recorded into said ring buffer.

5. (Original) An apparatus according to claim 3, wherein said ring buffer monitor image signal generating part changes a form of said reproducing position mark in accordance with a genre of a program based on said image signal reproduced from said ring buffer and changes a form of said recording position mark in accordance with a genre of a program based on said image signal to be recorded into said ring buffer.

6. (Original) An apparatus according to claim 1, wherein said ring buffer monitor image signal generating part generates an image signal, as said ring buffer monitor image signal, for allowing a ring buffer stripe showing a whole area of said ring buffer to be displayed onto a peripheral area of a screen of a display device, for allowing a recording position mark to be multiplexed and displayed at a position corresponding to said recording position on said ring buffer stripe, and for allowing a reproducing position mark to be multiplexed and displayed at a position corresponding to said reproducing position on said ring buffer stripe, respectively.

7. (Original) An apparatus according to claim 6, wherein each delimiter of a plurality of programs based on said image signal recorded in said ring buffer is shown on said ring buffer stripe.

8. (Original) An apparatus according to claim 6, wherein said ring buffer monitor image signal generating part generates said ring buffer monitor image signal in order to allow the position on said ring buffer stripe corresponding to a reproduced portion in said ring buffer to be displayed in a predetermined form.

9. (Original) An information recording and reproducing apparatus with a ring buffer for reading and reproducing an image signal recorded in the ring buffer while writing an image signal supplied as time elapses into the ring buffer, comprising:

a recording and reproducing position information obtaining part for obtaining information indicative of each of a recording position and a reproducing position at a present time point in said ring buffer; and

a ring buffer monitor image signal generating part for generating a ring buffer monitor image signal for allowing a recording position mark to be displayed at a position corresponding to said recording position on a peripheral area of a screen of a display device and allowing a reproducing position mark to be displayed at a position corresponding to said reproducing position on said peripheral area, respectively.

10. (Original) A monitoring method of a ring buffer in an information recording and reproducing apparatus with the ring buffer for reading and reproducing an image signal recorded in the ring buffer while writing an image signal supplied as time elapses into the ring buffer, comprising:

a ring buffer monitor image signal generating step of generating a ring buffer monitor image signal indicative of an image showing a relative positional relation of each

of a recording position and a reproducing position at a present time point in said ring buffer;

an image synthesizing step of obtaining a synthesis image signal by synthesizing said image signal reproduced from said ring buffer and said ring buffer monitor image signal; and

a display step of displaying on the basis of said synthesis image signal.

11. (Original) A method according to claim 10, wherein in said ring buffer monitor image signal generating step, an image signal is generated as said ring buffer monitor image signal in order to allow a recording position mark to be displayed at a position corresponding to said recording position on a peripheral area of a screen of a display device and allow a reproducing position mark to be displayed at a position corresponding to said reproducing position on said peripheral area, respectively.

12. (Original) A method according to claim 11, wherein in said ring buffer monitor image signal generating step, a form of said reproducing position mark is changed in accordance with a bit rate of said image signal reproduced from said ring buffer and a form of said recording position mark is changed in accordance with a bit rate of said image signal to be recorded into said ring buffer.

13. (Original) A method according to claim 11, wherein in said ring buffer monitor image signal generating step, a form of said reproducing position mark is changed in accordance with a genre of a program based on said image signal reproduced from said

ring buffer and a form of said recording position mark is changed in accordance with a genre of a program based on said image signal to be recorded into said ring buffer.

14. (Original) A method according to claim 10, wherein in said ring buffer monitor image signal generating step, an image signal is generated as said ring buffer monitor image signal in order to allow a ring buffer stripe showing a whole area of said ring buffer to be displayed onto a peripheral area of a screen of a display device, allow a recording position mark to be multiplexed and displayed at a position corresponding to said recording position on said ring buffer stripe, and allow a reproducing position mark to be multiplexed and displayed at a position corresponding to said reproducing position on said ring buffer stripe, respectively.

15. (Original) A method according to claim 14, wherein each delimiter of a plurality of programs based on said image signal recorded in said ring buffer is shown on said ring buffer stripe.

16. (Original) A method according to claim 14, wherein in said ring buffer monitor image signal generating step, said ring buffer monitor image signal is generated in order to allow the position on said ring buffer stripe corresponding to a reproduced portion in said ring buffer to be displayed in a predetermined form.

17. (Original) A monitoring method of a ring buffer in an information recording and reproducing apparatus with a ring buffer for reading and reproducing an image signal

recorded in the ring buffer while writing an image signal supplied as time elapses into the ring buffer, comprising:

a recording and reproducing position information obtaining step of obtaining information indicative of each of a recording position and a reproducing position at a present time point in said ring buffer;

a ring buffer monitor image signal generating step of generating a ring buffer monitor image signal for allowing a recording position mark to be displayed at a position corresponding to said recording position on a peripheral area of a screen of a display device and allowing a reproducing position mark to be displayed at a position corresponding to said reproducing position on said peripheral area, respectively;

an image synthesizing step of obtaining a synthesis image signal by synthesizing said image signal reproduced from said ring buffer and said ring buffer monitor image signal; and

a display step of displaying on the basis of said synthesis image signal.

18. (New) An apparatus according to claim 1, wherein said peripheral area of said screen of said display device includes four sides of said screen of said display device.

19. (New) An apparatus according to claim 2, wherein said image signal reproduced from said ring buffer is displayed onto a center portion of a screen of a display device, and said ring buffer monitor image signal is displayed onto a peripheral area of the screen of said display device.

20. (New) An apparatus according to claim 6, wherein said peripheral area of said screen of said display device includes four sides of said screen of said display device.
21. (New) A method according to claim 9, wherein said peripheral area of said screen of said display device includes four sides of said screen of said display device.
22. (New) A method according to claim 10, wherein said display step includes:
displaying said image signal reproduced from said ring buffer onto a center portion of a screen of a display device, and
displaying said ring buffer monitor image signal onto a peripheral area of the screen of said display device.
23. (New) An apparatus according to claim 14, wherein said peripheral area of said screen of said display device includes four sides of said screen of said display device.